



SEQUENCE LISTING

<110> Vaisvila, Romualdus
Morgan, Richard D.
Kucera, Rebecca B.
Claus, Toby B.
Raleigh, Elisabeth A.

<120> Method For Cloning And Producing The MseI Restriction Endonuclease

<130> NEB-181

<140> US 09/689,343

<141> 2000-10-12

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<170> PatentIn version 3.1

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Glu Ala Asp Asn Leu Asp Phe Ile Gln Thr Leu Pro Asp Ala Ser Phe
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cga atg atc tac atc gat ccg ccg ttc aac aca ggg cga acg cag cgg 144
Arg Met Ile Tyr Ile Asp Pro Pro Phe Asn Thr Gly Arg Thr Gln Arg
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ctt cag tcg ctc aag acg acc cgc tcg gtc aca ggg tcg cga gtc ggc 192
Leu Gln Ser Leu Lys Thr Thr Arg Ser Val Thr Gly Ser Arg Val Gly
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Phe Lys Gly Gln Thr Tyr Asp Thr Val Lys Ser Thr Leu His Ser Tyr
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Asp Asp Ala Phe Thr Asp Tyr Trp Ser Phe Leu Glu Pro Arg Leu Leu
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Leu	Gly	Lys	Leu	Pro	Thr	Asp	Val	Trp	Trp	His	Thr	Ile	Val	Pro	Pro	
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Ile	Arg	Arg	Met	Ile	Gln	Ala	Ser	Ser	Asn	Glu	Gly	Asp	Trp	Val	Leu	
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Asp	Phe	Phe	Ala	Gly	Ser	Gly	Thr	Thr	Gly	Ala	Ala	Ala	Arg	Gln	Leu	
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Gly	Arg	Arg	Phe	Val	Leu	Val	Asp	Val	Asn	Pro	Glu	Ala	Ile	Ala	Val	
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Met	Ala	Lys	Arg	Leu	Asp	Asp	Gly	Ala	Leu	Asp	Thr	Ser	Val	Thr	Ile	
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gtg	cag	act	ccc	cag	agt	gac	cca	cga	acc	gac	gga	tga				903
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35 40 45

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Phe Lys Gly Gln Thr Tyr Asp Thr Val Lys Ser Thr Leu His Ser Tyr
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Asp Asp Ala Phe Thr Asp Tyr Trp Ser Phe Leu Glu Pro Arg Leu Leu
85 90 95

Glu Ala Trp Arg Leu Leu Thr Pro Asp Gly Ala Leu Tyr Leu His Leu
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Asp Tyr Arg Glu Val His Tyr Ala Lys Val Val Leu Asp Ala Met Phe
115 120 125

Gly Arg Glu Ser Phe Leu Asn Glu Leu Ile Trp Ala Tyr Asp Tyr Gly
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Ala Arg Ser Lys Ser Lys Trp Pro Thr Lys His Asp Asn Ile Leu Val
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Tyr Val Lys Asp Pro Asn Asn Tyr Val Trp Asn Gly Gln Asp Val Asp
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Arg Glu Pro Tyr Met Ala Pro Gly Leu Val Thr Pro Glu Lys Val Ala
180 185 190

Leu Gly Lys Leu Pro Thr Asp Val Trp Trp His Thr Ile Val Pro Pro
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Ala Ser Lys Glu Arg Thr Gly Tyr Ala Thr Gln Lys Pro Val Gly Ile
210 215 220

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Asp Phe Phe Ala Gly Ser Gly Thr Thr Gly Ala Ala Ala Arg Gln Leu
245 250 255

Gly Arg Arg Phe Val Leu Val Asp Val Asn Pro Glu Ala Ile Ala Val
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cct aat cgt ctg att tgg gcg gac aac ctg ccg cta atg gta gat ttg 144
 Pro Asn Arg Leu Ile Trp Ala Asp Asn Leu Pro Leu Met Val Asp Leu
 35 40 45

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 Phe Phe Thr Asp Arg Thr Tyr Ala Ala Arg Ile Gly His Gly Glu Asp
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tcg cgt cgt cca caa acc tgg cag ctt gca gaa gga tat acg gac gag 288
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tgg aag gat tta gat gaa tac ctg gac ttc ctt tat cca cgc ctg gta 336
 Trp Lys Asp Leu Asp Glu Tyr Leu Asp Phe Leu Tyr Pro Arg Leu Val
 100 105 110

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 Trp Asp Gly Lys Ile Phe Arg Ser Arg His Gln Gly Leu Arg Ser Arg
 355 360 365

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 Leu Gln Glu Gln Ala Pro Leu Ser Leu Pro Leu Thr Gly Asn Gly Leu
 370 375 380

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Leu Ala Glu Tyr Glu Gly Lys Ile Asp Leu Ile Tyr Ala Asp Pro Pro
 50 55 60

Phe Phe Thr Asp Arg Thr Tyr Ala Ala Arg Ile Gly His Gly Glu Asp
 65 70 75 80

Ser	Arg	Arg	Pro	Gln	Thr	Trp	Gln	Leu	Ala	Glu	Gly	Tyr	Thr	Asp	Glu	85	90	95
Trp	Lys	Asp	Leu	Asp	Glu	Tyr	Leu	Asp	Phe	Leu	Tyr	Pro	Arg	Leu	Val	100	105	110
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Asp	Trp	His	Ala	Asn	Ala	Tyr	Val	Arg	Val	Leu	Leu	Asp	Glu	Ile	Phe	130	135	140
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Ser	Ala	Ile	Arg	Arg	Ala	Phe	Lys	Arg	Lys	His	Asp	Thr	Ile	Leu	Val	165	170	175
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Ser	Ser	Asn	Ala	Gly	Asp	Leu	Val	Ala	Asp	Phe	Phe	Cys	Gly	Ser	Gly	260	265	270
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Glu	Gly	Val	Ser	Phe	Thr	Phe	Glu	Arg	Gln	Glu	Thr	Phe	Thr	Leu	Pro	305	310	315
Ile	Gln	Pro	Leu	Pro	Pro	Asp	Trp	Leu	Ile	Ile	Ala	Glu	Glu	Gln	Ile	325	330	335
Arg	Leu	Gln	Ala	Pro	Phe	Leu	Val	Asp	Phe	Trp	Glu	Val	Asp	Asp	Gln	340	345	350
Trp	Asp	Gly	Lys	Ile	Phe	Arg	Ser	Arg	His	Gln	Gly	Leu	Arg	Ser	Arg	355	360	365
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Leu Ile Tyr Ile Asp Pro Pro Phe Asn Thr Gly Lys Val Gln Glu Arg
35 40 45

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Ala His Arg Val Leu Ala Pro His Gly Cys Leu Tyr Phe His Val Asp
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Tyr Arg Glu Val His Tyr Cys Lys Val Leu Leu Asp Gly Ile Phe Gly
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 Ala Lys Thr Pro Gly Arg His Val Phe Asn Ala Asp Glu Ile Glu Arg
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att ccc tac atg gct ccg ggc ctg gtt ggc ccc gaa aag gca gcc cgt 576
 Ile Pro Tyr Met Ala Pro Gly Leu Val Gly Pro Glu Lys Ala Ala Arg
 180 185 190

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 Gly Lys Leu Pro Thr Asp Thr Trp Trp His Thr Ile Val Pro Thr Ser
 195 200 205

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 Arg Arg Phe Ile Leu Val Asp Asn His Pro Glu Ala Leu Gln Val Met
 260 265 270

gcc agg cgc ttc gac ggc atc gag ggg atc gaa tgg gtg ggc ttc gat 864
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Pro Thr Gly
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 50 55 60

ggc ctc cgt gtg aag agg tcg ggg tcc agc gat gcg gac cgc gtg atc 240
 Gly Leu Arg Val Lys Arg Ser Gly Ser Ser Asp Ala Asp Arg Val Ile
 65 70 75 80

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 Asn Gly His Arg Ile Glu Ile Lys Met Ser Thr Leu Trp Lys Ser Gly
 85 90 95

ggc ttc aag ttt cag cag atc cgg gat cag gag tac gac ttt tgc ctc 336
 Gly Phe Lys Phe Gln Gln Ile Arg Asp Gln Glu Tyr Asp Phe Cys Leu
 100 105 110

tgc ctt ggg atc agc ccg ttc gaa gtg cac gcg tgg ctg ctg ccc aaa 384
 Cys Leu Gly Ile Ser Pro Phe Glu Val His Ala Trp Leu Leu Pro Lys
 115 120 125

gac cta ttg ctt gag tac gtg att ggt cac atg ggt cag cac acc ggc 432
 Asp Leu Leu Leu Glu Tyr Val Ile Gly His Met Gly Gln His Thr Gly
 130 135 140

gcg agc ggg agc gac act gcg tgg ctg ggg ttc cca gcg gac gag ccg 480
Ala Ser Gly Ser Asp Thr Ala Trp Leu Gly Phe Pro Ala Asp Glu Pro
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